Table of Contents

List of Figures

1   Introduction

The Total Integrated Procurement System/Procurement Desktop (TIPS/PD) Implementation Plan defines the strategy for executing each of the high-level sets of tasks required to successfully implement TIPS, focusing primarily on Procurement Desktop, to support the procurement process at Los Alamos National Laboratory (LANL). In addition, the Implementation Plan presents a project schedule detailing each of the project tasks and subtasks in the form of a Gantt chart.

The implementation plan serves as a road map, checklist, and reference guide for TIPS implementation and support

The TIPS/PD Implementation Plan defines the following aspects of the system implementation:

◆ Section 2—On-going Project Management

◆ Section 3—TIPS/PD Implementation Assumptions

◆ Section 4—TIPS/PD Rollout Strategy

◆ Section 5—Testing Strategy

◆ Section 6—Conversion Strategy

◆ Section 7—Documentation Strategy

◆ Section 8—Training Strategy

◆ Section 9— Project Schedule

The implementation plan and its components will serve as a "road map", checklist, and reference guide as the project team continues to implement and support TIPS at LANL.

2   On-going Project Management

On-going project management tasks define and control the effort to customize and implement Procurement Desktop to support LANL's purchasing process as part of the Total Integrated Procurement System (TIPS). These tasks focus on control of the project's progress and provide a mechanism for reporting project status to the LANL procurement community in a timely and effective manner. On-going Project Management tasks include:

◆   Conduct weekly status meetings to discuss project progress, outstanding issues, and action items

◆   Establish a change management review board to address current and evolving system and business process issues

◆   Conduct a monthly project sponsor status meeting to update key sponsors on project progress and issues

◆   Communicate with the lab-wide procurement community by posting status updates on the TIPS home page

◆   Plan, monitor, and manage project expense and resource allocation

◆   Review and refine the project schedule

2.1   Project Schedule and Resource Management

LANL and American Management Systems (AMS) project managers must ensure that project progress and results meet LANL's business objectives within time and budgetary constraints *by resolving potential project issues before they begin to impede progress*. The status reports and meetings will focus on the entire Procurement Desktop / TIPS implementation effort and the team associated with that effort (LANL and AMS). By approaching the implementation with a single, shared-team approach, management can include all of the issues and tasks affecting success. Since the degree of dependency between LANL tasks (*e.g.,* business process decision-making, staff scheduling, infrastructure operation) and AMS tasks is high,

management must ensure coordination of the effort to implement Procurement Desktop / TIPS.

Periodic (weekly) written status reports will describe:

◆ Work completed during the previous week;

◆ Work to be performed during the next period; and,

◆ Issues, problems, and their resolution.

AMS project management will use an action item tracking table to review scheduled tasks and responsibilities. *Figure 2-1* models an action item tracking table.

Figure 2-1   *PD / TIPS Action Items*

Item	Action	Start	End	Responsible	Status
1	Install training database	1/15/97	1/17/97	Mark M	Completed 1/16/97
2	Create training data	1/20/97	1/22/97	Andy C	In progress
3	Coordinate training data backup & restore schedule with DBA	1/15/97	1/21/97	Jeff B	Completed 1/20/97

2.2   Project Budget Planning and Control

Each potential enhancement represents a measurable cost to the project in terms of time, money, and staff resources

TIPS project management is responsible for planning and controlling project costs. Each potential enhancement, scope expansion, technical architecture change, additional training activity, and alternative decision analysis represents a measurable cost to the project, in terms of time, money, and staff resources. *The project managers must weigh each of these costs when considering the potential benefits of a given project-related task* (e.g., supporting an additional client operating environment; automating electronic routing decisions based on a certain dollar threshold).

For each proposed enhancement or additional task (e.g., feasibility studies), AMS will provide LANL with a level-of-effort estimate in terms of time, money and staffing resources. *LANL can use these estimates to budget near, mid, and long-term project expenses, and to present cost/benefit analyses to the TIPS user group and project sponsors*. LANL should also estimate non-AMS tasks in the

same fashion, so resources can be appropriately managed across the entire TIPS project.

The TIPS team can use level-of-effort estimates to plan and scope new software releases

These estimates will also help the TIPS team plan and scope software releases. Based on the complexity and cost of desired system functionality, TIPS project management can work with the user group to schedule and scope future TIPS/PD releases. *Since the user group represents a cross-section of the purchasing function at LANL, they will be able to assess the business priority of potential enhancements.* TIPS management may wish to develop *a business priority / relative cost* algorithm to prioritize project tasks and allocate the appropriate resources.

Figure 2-2   10 Aspects of Enhancement Prioritization

	Impact on LANL User Group X	Impact on LANL User Group Y	Impact on Other PD Functionality	Impact on Other TIPS Applications	Impact on Interfaces	Impact on Infrastructure	Impact on Current Documentation/ Training Materials	Extent of Analysis Required	Impact on User Interface	Technical Complexity
Add Routing and Reviewing Functionality to the Web-Based Solution	1	3	2	2	3	1	2	1	1	1
Automate Routing Decisions Based on Dollar Thresholds	2	2	2	3	3	3	2	2	2	2

Impact/Desirability/Level-of-Effort
1- High
2- Medium
3- Low

2.3 Change Management

The implementation of TIPS at Los Alamos National Laboratory will introduce a significant amount of change to both the procurement organization, and entities that interact with the procurement organization. While current users acknowledge a need for process improvement, the impact of implementing an initiative on the scale of TIPS will undoubtedly cause stress and some resistance in the short term. Effective change management reduces resistance to the changes caused by TIPS, and helps ensure that these changes are accepted and adopted by the user community.

Equally important to a sound technical design and implementation is the process of preparing the user community both intellectually and emotionally for the upcoming change. It is the role of TIPS project management to help communicate the reasons for the change and the benefits to be realized from implementing TIPS. As a result, the user community is more likely to tolerate the short-term frustrations that accompany the transition in order to realize long-term benefits.

The remainder of this section focuses on *communicating change to the TIPS stakeholders*. Communicating the change is a primary principal of change management and one of the seven activities focused on by change management practitioners. Other activities include:

◆ Leading the Change

◆ Engaging Stakeholders

◆ Measuring Performance

◆ Monitoring Readiness for Change

◆ Organizing for Change

◆ Planning for Transition

The AMS Best Practices document on Change Management contains further insight on these activities and can be reviewed with TIPS project management as needed.

2.3.1　Communicating the Change

Resistance to change is typically brought about by fear of the unknown, skepticism, loss of control, or misperceptions about the effects of change. To the fullest extent possible, TIPS project management (LANL and AMS) should engage in active communication with TIPS stakeholders in order to mitigate this resistance.

TIPS project managers should try to view the implementation of TIPS through the eyes of the audience (requesters, A/P, etc.). Some of the basic questions users may want answers to include:

◆　Why are we changing to TIPS?

◆　How long do we have?

◆　What does it mean for me? for LANL?

◆　What are you going to do to help me change?

◆　Are we on track?

Addressing these questions will take place in both formal and informal settings. Some of the formal methods of communication include the following:

◆　Presenting TIPS status and Q&A at procurement group meetings

◆　Presenting TIPS status and Q&A at team meetings and CQI meetings

◆　Updating the TIPS Home Page with current project information/ deliverables

◆　Producing LANL newsletters/bulletins

Informal communication, which can be an equally powerful form of communication, may take place at any time between users and TIPS project team members. In order to foster this effective two-way communication, *AMS analysts will be conducting one-on-one interviews with each member of the TIPS user group*. These interviews are designed to collect user requirements and general feedback from the user community in an informal setting. The interviews also serve to help establish trust and credibility among key individuals (i.e., the feeling that "those TIPS guys are *really* listening").

2.3.2   Change Management Tasks

During the JAD, the participants identified several specific action items that should be taken in anticipation of the changes brought about by TIPS. Each of these items should be evaluated, and if appropriate, added to the project schedule to ensure tracking and follow through.

◆   Inform the users of the benefits of the system

◆   Update the TIPS focus teams on progress, keep them informed, and demonstrate the system in advance

◆   Train the customers

◆   Record customer comments

◆   Review and identify impacts on organizational structure

◆   Inform the requesters of what they need

◆   Involve requesters in a trial session

◆   Monitor Performance

- Identify and track cost savings

- Produce a benefits assessment

- Advertise improved results

- Benchmark the current systems

◆   Identify career development opportunities in the changing TIPS environment

◆   Provide assurances to threatened staff

◆   Inform staff of ongoing developments

◆   Provide ongoing support and refresher training

◆   Involve BUS field personnel and help them become functional through training

◆   Develop and implement a TIPS marketing plan

3   TIPS/PD Implementation Assumptions

The TIPS/PD implementation plan is based on several assumptions. These assumptions clarify project team expectations and facilitate an effective migration into the TIPS/PD environment.

◆ Infrastructure Readiness—LANL will allocate the necessary computer resources (e.g., file servers, database servers, workstations) as specified in the *LANL Procurement Desktop System Architecture* specification.

◆ Software Installation—A central installation team will install Procurement Desktop software for all LANL user groups. LANL support personnel for each user group will work with the Procurement Desktop installation team during this process in an apprenticeship environment designed to facilitate a rapid transfer of knowledge of the Procurement Desktop installation procedures. The Procurement Desktop team will provide technical support to on-site staff during the initial production installation consisting of general database support, system administration and security controls, and technical infrastructure trouble-shooting.

◆ User Readiness—All users (including acceptance testers) will participate in Procurement Desktop functional training during system implementation. *The minimum training required will vary depending on whether the user is a full-function buyer − and as such has access to all Procurement Desktop functionality; or a requester using more limited web-based functionality*. In addition, at least one user from each user group will participate in Procurement Desktop System Administration training (see **Section 8—Training Strategy** for Procurement Desktop training details).

◆ LANL Implementation Roles—Each LANL user group will be responsible for ensuring the presence of individuals capable of filling various implementation and on-going Procurement Desktop system support roles. **Figure 3-1** describes the anticipated implementation roles required during the *pilot implementation* of Procurement Desktop. **Figure 3-2** describes the anticipated *on-going* implementation roles for LANL staff.

| Figure 3-1 | Procurement Desktop Pilot Implementation Roles |

The following implementation roles are required during the PD pilot implementation *tasks 4.1—4.15* on the TIPS/PD project schedule (see **Section 9**).

Implementation Support Role	Role Description	Estimated Level of Effort
Procurement Desktop Application Administration	Establish and maintain Procurement Desktop system administration settings	Half time*; 1 application administrator per user group. See *Section 4, Production Rollout Strategy*, for more information on what comprises a user group.
LAN Administration	Maintain the existing Local Area Network and make necessary adjustments (as defined in the *LANL Procurement Desktop System Architecture*) for successful Procurement Desktop operation.	No significant increase to LANL's current support requirements
OA Software Administration	Install and/or maintain OA software (e.g., MS Word, MS Excel)	No significant increase to LANL's current support requirements
Procurement Desktop Software Installation	Install and maintain Procurement Desktop software on each client machine, the database server, and the file server	1 Full time resource
Site Infrastructure Management	Install and/or maintain and trouble-shoot infrastructure components (e.g., DB2, RS6000 SP, Windows)	1 Full time resource (perhaps the same resource mentioned above) and DBA support
Procurement Desktop Workgroup Implementation Management	Manage scheduling and resource allocation for Procurement Desktop implementation	Full time

* Half time = The implementation role will require approximately 50% of an individual's time over the elapsed time of the designated implementation tasks (i.e., *task group 4* on the TIPS/PD project schedule).

Figure 3-2   *Procurement Desktop On-Going Support Roles*

The following on-going support roles are required to support the LANL Procurement Desktop user community.

On-Going Support Role	Role Description	Estimated Level of Effort
Procurement Desktop Application Administration	Establish and maintain Procurement Desktop system administration settings	80 hours / month; 1 application administrator per 70 users
Procurement Desktop Application Expert	Become expert on Procurement Desktop and OA software (e.g., MS Word, MS Excel) functionality. Assist general user population with application questions*; essentially act as Level 1 support.*	40 hours / month; 1 super user per 20 users
LAN Administration	Maintain the existing Local Area Network and make any necessary adjustments for successful Procurement Desktop operation.	No significant increase to LANL's current support requirements
OA Software Administration	Install and/or maintain OA software (e.g., MS Word, MS Excel)	No significant increase to LANL's current support requirements
Procurement Desktop Software Installation	Maintain each Procurement Desktop software release on each client machine, the database server, and the file server	40 hours / month
Site Infrastructure Management	Maintain and trouble-shoot infrastructure components (e.g., DB2, RS6000 SP, Windows)	40 - 80 hours / month (perhaps the same resource mentioned above) and DBA support

4   Rollout Strategy

The implementation team will use a phased approach to verify and improve the system installation procedures

By using a phased approach to install TIPS / Procurement Desktop at LANL, the implementation team will be able to refine and improve the rollout process. The team will be able use the experience from the *test lab* and *pilot* rollouts in subsequent lab-wide installations, thereby reducing the number of problems encountered during a typical installation and reducing the time required to rollout new releases to user groups lab-wide.

4.1   PD Environments at LANL

Procurement Desktop will be implemented in three distinct LANL environments:

◆   The PD test lab environment will provide a user acceptance and implementation/support procedure test bed. This environment will mimic the production environment at LANL.

◆   The Pilot environment will represent the first production use of Procurement Desktop at LANL. The environment will include as many components (i.e., interfaces, LANL-specific modifications) as possible.

◆   The full production environment will consist of all LANL procurement groups with at least the minimum functionality required to effectively support LANL's purchasing process in the client/server environment.

The pilot user group will consist of a subset of the expected user base. The CIC users performing the buyer function will migrate from the MacIntosh to a Windows-based, client/server environment and use TIPS/PD to support a representative sample of the LANL purchasing process. AMS will work with LANL to prepare, implement, and support the pilot user group.

In order to adequately plan the eventual full production rollout, the TIPS team must determine:

1. How many distinct Procurement Desktop user groups are there at LANL (distinct can be defined as organizational separations or functional groupings)?

2. How many distinct Procurement Desktop user group *locations* exist at LANL? Are the user group locations the same as the user groupings defined in (1) above?

3. How many users are in each Procurement Desktop user group?

4. What procurement function does each group serve?

Figure 4-1 provides a table for collecting the appropriate PD demographic data.

Figure 4-1   *Procurement Desktop User Group Demographics*

Procurement Desktop User Group	Location (bldg. #, etc.)	Number of Users	Procurement Function (e.g., requesters, buyers, A/P)

Each workgroup site must establish the TIPS/Procurement Desktop operating environment as defined in the *LANL Procurement Desktop System Architecture* specification.

4.2　Pilot/Production Installation Tasks

The primary pilot/production installation tasks (defined in the Project Schedule in *Section 9*) include:

◆　Define PD system administration settings for each user group (*task 2.4*)—The TIPS/PD team will work with each user group to discuss standard LANL-wide system administration settings (e.g., standard document security rules, standard terms and conditions) and identify and configure group-specific configuration requirements (e.g., procurement teams, group-specific security access, group-specific templates).

◆　Allocate Necessary Computer Resources (task 4.15.1) (client and server machines)—LANL should allocate each Procurement Desktop user group the required computer resources as outlined in the *LANL Procurement Desktop System Architecture* specification.

◆　Certify System Environment (task 4.15.2)—The TIPS/PD implementation team will certify the configuration of each workgroup system environment. Environment compliance with the LANL/PD system architecture ensures proper system environment configuration and readiness for smooth Procurement Desktop installation and operation.

◆　Install Production Software (task 4.15.3)—The TIPS/PD Implementation Team will install all Procurement Desktop software in the LANL system environment.

◆　Identify and Format Conversion Data (tasks 3.2.3, 4.15.4)—The TIPS/PD Implementation Team will identify and format conversion data according to the Conversion Strategy detailed in *Section 6* of this document.

◆　Execute Installation Tests (task 4.15.5)—The TIPS/PD implementation team will execute a series of installation tests to verify system readiness.

5   Testing Strategy

The TIPS/PD testing process will measure and promote system quality

The acceptance testing strategy for TIPS/PD outlines a program of comprehensive testing for the implementation of Procurement Desktop within the TIPS production environment at Los Alamos National Laboratory (LANL). Verifying the Procurement Desktop application at LANL involves the testing of all custom enhancements to the software, as well as LANL-specific interfaces to existing systems. The strategy serves as a guide for the planning, preparation, and execution of Procurement Desktop test scenarios at both AMS and LANL facilities in Los Alamos, New Mexico. This plan supports the overall project objective to provide a fully-functional, tested Procurement Desktop software release for LANL. The testing strategy defines all aspects of Procurement Desktop software testing including:

◆ Testing phases;

- *Phase 1*—Unit Testing

- *Phase 2*—System Integration Testing

- *Phase 3*—User Acceptance Testing

◆ Test procedures and techniques used during each phase; and

◆ Personnel responsible for testing during each phase.

Procurement Desktop testing will take place during all phases of software development.

5.1   System Acceptance Test Principals

In order to provide a smooth transition to the Procurement Desktop system, AMS will rely on the following general principles to plan, prepare, and execute Procurement Desktop system acceptance tests:

◆ Each system acceptance test phase is designed to achieve distinct and measurable objectives. Only those testing tasks within the scope of a particular test phase will be completed during that phase.

◆ System acceptance testing will be scheduled to coincide with the delivery date of Procurement Desktop software.

◆ Procurement Desktop system testing will be completed in three distinct phases (each phase is described in more detail later in this document):

- Unit testing during software development;

- Integrated systems testing; and

- User acceptance testing.

◆ The Procurement Desktop Issue Tracker will be the primary tool used to manage software maintenance issues.

5.2   Testing Assumptions

The details of the testing strategy are based on the following assumptions:

◆ The LANL Procurement Desktop acceptance test environment will include all applications interfaced with TIPS/Procurement Desktop (e.g., PAID, EIS, etc).

◆ AMS and LANL developers/testers will have 4 weeks to conduct on-site integration testing at LANL prior to user acceptance testing.

◆ AMS on-site integration testing will be done in the same environment as LANL user acceptance testing. To be as comprehensive as possible, integration testers will process the test scripts (based on LANL's procurement business process) to be used by the user acceptance testers. *Therefore, the user acceptance test scripts for a given software release must be completed before the integration test period begins.*

◆ LANL acceptance testers have a basic knowledge of the LANL procurement process prior to testing Procurement Desktop. They will execute predefined test scripts based on the procurement process.

◆ LANL testers have completed the basic Procurement Desktop training course and are familiar with Procurement Desktop functionality prior to conducting their respective tests.

◆ LANL will arrange for the appropriate staff to test during user acceptance testing. The testing will only be effective if the tester group consists of representatives from each functional area.

◆ The user acceptance test scripts will classify test cases as *base processing* or *exception processing*. This classification will allow TIPS management to make well-informed decisions based on acceptance test results (i.e., the schedule is not delayed due to system failure on a rare exception test case).

5.3   Phase 1—Unit Testing

Unit testing verifies the functionality of individual software components

Ongoing testing during all phases of the systems development life cycle is critical to the development of a robust application. The initial phase of software testing consists of the unit testing that takes place during software development.

5.3.1   Scope

Each software module undergoes rigorous unit testing during development in order to identify 'defects' prior to including the module in the Procurement Desktop application. Software developers at both AMS and LANL are responsible for unit testing the code that each contributes to the application. Unit testing verifies that a software module is functioning as specified in the original design. *The designs, rather than a particular tester's preference or opinion, will be used to measure software quality*.

5.3.2   Strategy

The quality of the software produced for subsequent testing phases is highly dependent on good, structured unit testing. *Figure 5-1* illustrates the unit testing process. All the appropriate members of the Procurement Desktop implementation team (primarily designers, developers, and testers) will follow this process. Often, the best unit tester of a particular piece of software is the original designer.
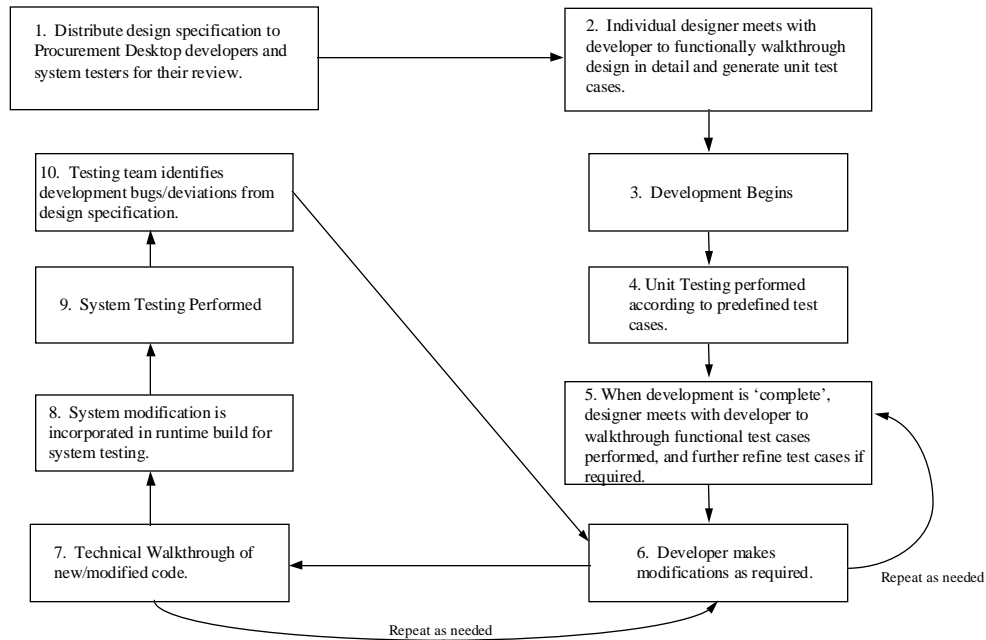
5.4   Phase 2 — System Integration Testing

AMS will perform system integration testing in a fully-integrated environment that includes all LANL-specific interfaces

AMS will perform system integration testing once all system components have been fully unit tested and an integrated application runtime has been produced. The integration testing will take place in the LANL user acceptance test environment in Los Alamos, New Mexico — the same environment that will subsequently be used for the LANL user acceptance test. *This environment must support the fully integrated application, including the TIPS Wizard, Web PR module, and all LANL-specific system interfaces.*

5.4.1 Scope

The on-site system integration test is intended to identify integration issues that may arise once all Procurement Desktop software components are assembled in the LANL environment. The system integration test will include thorough testing of all custom interface software as well as any LANL-specific customizations.

5.4.2 Strategy

A team of AMS testers will execute a series of pre-defined scenarios to exercise all major Procurement Desktop system components. This application regression testing will ensure that the software works as designed in the LANL environment and successfully integrates all system interfaces.

AMS and LANL will prepare testing scenarios for use during both system integration testing (AMS), and user acceptance testing (LANL). AMS will also use system administration data and settings provided by LANL testers to ensure consistent system settings between AMS and LANL tests.

AMS testers will use Procurement Desktop's Issue Tracker to record and manage the resolution of all issues that are encountered during system integration testing. Issues that are unresolved at the completion of integration testing will be reviewed with TIPS project management prior to the commencement of *Phase 3 – User Acceptance Testing*.

5.5 Phase 3—User Acceptance Testing

The final phase of system testing is performed by LANL testers in the user acceptance test environment in Los Alamos, New Mexico.

5.5.1   Scope

The user acceptance testing phase allows LANL users to verify that Procurement Desktop functionality works according to specification. Volume or 'stress' testing the application should also take place during user acceptance to ensure the application sufficiently supports the required number of concurrent users in the LANL environment.

5.5.2   Strategy

User acceptance testers will use scenarios based on real business situations

Testers in the LANL acceptance test environment will test according to pre-defined scenarios that represent real business situations. Processing real business procurements will better help testers verify Procurement Desktop's capability to support LANL business procedures. *Testers should execute scripts that correspond to their actual business function. For example, users testing the requisitioning module will test the application according to scenarios that reflect their future business function based on the TIPS requisitioning process.*

5.5.3   Procurement Desktop Issue Resolution Process

LANL testers will record all issues encountered during user acceptance testing in the Procurement Desktop Issue Tracker. The Issue Tracker provides an efficient mechanism for organizing the issues captured during acceptance testing. In addition to capturing the issue while logged into Procurement Desktop, the Issue Tracker also allows the implementation team to manage the resolution of system issues (e.g., filter issues, prioritize and assign issues).

The TIPS implementation team will manage issues using PD's Issue Tracker

During user acceptance testing, multiple reasons for recording an issue may arise. *Issues may range from network configuration problems − to system errors based on defects in the application code − to user-suggested enhancements*. As a result, the process of categorizing and prioritizing the issues captured during acceptance testing is critical to resolving problems and gaining user acceptance. The following diagram will serve as a guide to resolving issues captured during the LANL user acceptance test.

Figure 5-1   LANL Issue Resolution Process

```
┌──────────────────┐
│ Classify issue as │
│ maintenance item or │
│ modification item [AMS] │
└──────────────────┘
         │
         ▼
┌──────────────────────────┐          ╱╲                    Yes   ┌──────────────────┐
│ Review issue classifications with │ ──────▶  ╱    ╲  ──────────────▶ │ Prioritize issue and │
│ TIPS project management and │        ╱ Maintenance ╲            │ assign to the │
│ gain concurrence │                  ╲   Issue?   ╱              │ appropriate developer │
└──────────────────────────┘          ╲    ╱                    └──────────────────┘
                                        ╲╱                               │
                                         │ No                            ▼
                                         ▼                       ┌──────────────────┐
                              ┌──────────────────┐              │ Developer makes │
                              │ Group issue according to │       │ modifications as │
                              │ functional module [AMS] │        │ required │
                              └──────────────────┘              └──────────────────┘
                                         │                               │
                                         ▼                               ▼
                              ┌──────────────────┐              ┌──────────────────┐
                              │ Update TIPS Functional │        │ System modification is │
                              │ Map and LANL Change │          │ incorporated in runtime │
                              │ List │                          │ build for system testing │
                              └──────────────────┘              └──────────────────┘
                                         │
                                         ▼
                              ┌──────────────────────────┐
                              │ Prioritize Change List items for │
                              │ incorporation in future releases of │
                              │ Procurement Desktop │
                              └──────────────────────────┘
```

6   Conversion Strategy

LANL must evaluate options and define a conversion strategy

As Procurement Desktop is implemented at LANL, the Procurement Desktop databases require an initial load of data in order to make the system operational. In addition, LANL may want to load current operational data from existing procurement systems into Procurement Desktop in order to minimize the need for parallel systems operations.   The purpose of this section is to identify the different categories of conversion data and outline the options for their conversion and population into the Procurement Desktop databases.

6.1   Categories of Conversion Data

The following categories of conversion data have been identified:

◆ System Administration Data—System Administration data supports or defines the business functions and processes within Procurement Desktop. Examples of system administration data include user profiles and security data. *Integrating Procurement Desktop with LANL's existing user authentication structure (EIS, EAS, SAS) will minimize or eliminate the need for data conversion of this sort (see the LANL Procurement Desktop System Architecture specification for details).*

◆ Historical Data—Historical data reflects past operations. Historical data is not critical to current business operations, but serves as an audit trail for satisfying historical reporting requirements. Examples of historical data include terminated procurement projects and closed-out procurements. *Integrating Procurement Desktop, as well as legacy systems containing procurement information (e.g., PAID), with LANL's Data Warehouse application will minimize or eliminate the need for data conversion of this sort (See the LANL Procurement Desktop System Architecture specification for details).*

◆ Text-Based Data—Text-based data is information that is stored in a textual rather than table format. Text-based data includes word processing and spreadsheet documents. *Procurement Desktop's document import facility can be utilized to incorporate user documents in the PD environment on a case-by-case basis.*

◆ Operational Data—Operational data is active data critical to current business functions. Examples of operational data include procurement projects in the requisitioning or solicitation phase. *The volume and quality of existing procurement data are primary determinants when considering conversion strategy options for data of this sort.*

◆ 3rd Party Application Macros—All macros that support the existing LANL procurement process should be identified. The implementation team will analyze which macros require conversion and whether Procurement Desktop functionality supersedes any of the existing macro functionality. *The task of analyzing existing LANL macros should be performed by the TIPS user group (with support from AMS) as part of the TIPS implementation.*

Note: The implementation team will continue with analysis to identify the specific LANL data that requires conversion.

6.2 Conversion Strategy Options

The TIPS team must define a strategy for converting each category of data

Based on results of the continuing conversion analysis, the TIPS team must select the appropriate strategy for converting (if conversion is deemed necessary) each category of data. The two primary options for converting existing procurement data are:

◆ Manual Conversion—Under this approach, procurement data from existing systems is loaded in the Procurement Desktop database via the Procurement Desktop application. This approach is most effective when a low volume of data requires conversion. *All of the investment in terms of time and cost is related to the labor required to perform the manual conversion.*

◆ Automated Conversion—Under this approach, an automated conversion tool is developed to load the Procurement Desktop database with data from existing procurement systems. This approach is most effective when a relatively high volume of data requires conversion. *The investment in terms of time and cost is related to the design, development, and testing of a custom developed conversion tool.*

LANL should perform a cost/benefit analysis to determine the most cost-effective method of conversion for each data category. The following questions should be considered in the analysis:

1. What is the volume of data requiring conversion?

2. Does the Procurement Desktop implementation timeframe allow for sufficient development time of a custom conversion tool?

3. Is all of the data for conversion readily available?

4. Does it make sense to convert historical data?

5. What is the quality of the data in the existing systems? If there are data quality issues, how will the data be cleaned up before implementation of the new system?

6. Have any other implementation projects converted from the existing procurement applications?

7   Documentation Strategy

The implementation team must effectively incorporate Procurement Desktop documentation into the TIPS documentation library

The baseline Procurement Desktop documentation includes both a hardcopy and softcopy of the User Reference Guide as well as the System Administration Reference Guide. In addition, the On-line Help available to the user from within the Procurement Desktop application contains the same information contained in the User Reference Guide. Since the baseline documentation reflects only baseline Procurement Desktop functionality, LANL must develop a strategy for incorporating TIPS-specific interfaces and customizations (i.e., TIPS documentation).

The Procurement Desktop implementation at LANL is one component—albeit a large one—of TIPS, a larger procurement system initiative within the organization. The implementation of TIPS requires integrating multiple systems (e.g., Procurement Desktop, JIT, EIS) as well as making customizations where necessary. Since the baseline Procurement Desktop documentation does not account for TIPS-specific interfaces or LANL-specific customizations, some modification to the baseline documentation is required to adequately reflect the TIPS environment. Also, the documentation should accommodate the needs of both categories of TIPS users:

◆ Power Users—buyers and 'power' requesters using the client server version of Procurement Desktop; and

◆ Casual Users—requesters, reviewers, and others using the Web-based requisitioning module.

AMS recommends a two-pronged strategy for effectively managing the TIPS/PD documentation requirements:

◆ Update the baseline PD documentation to reflect the complete TIPS/PD operating environment; and

◆ Create function-specific quick reference guides based on the standard business functions performed by a group of users (e.g., requisitioning, bid evaluation).

7.1 PD Documentation

The TIPS implementation team should update the baseline documentation to reflect the TIPS/PD operating environment. Specifically, the team should:

◆ *Incorporate all LANL specific interfaces and customizations made to Procurement Desktop.* The updated documentation set should include relevant documentation from other TIPS subsystems (e.g., JIT, DW, etc.).

◆ *Test the TIPS documentation for accuracy concurrently with the software testing effort.* Errors in the documentation will follow the same resolution process as errors found in the software (See **Section 5** for details regarding the testing process).

◆ *Update the online help files with the new documentation.* The team will also have to define any LANL-specific documentation standards and procedures for accessing online help outside of Procurement Desktop (but elsewhere in TIPS).

7.2 Quick Reference Guides

Quick reference guides will help users navigate quickly through the system to accomplish specific tasks

The TIPS team should develop quick reference guides to help users quickly navigate through certain system functions such as submitting a request, approving a document, or creating a supplier evaluation form. The TIPS user group can help identify potentially useful quick reference functions. *The quick reference guides will prove especially useful to casual users — who use the system infrequently, and only for specific tasks (such as submitting a request).*

A complete set of quick reference guides will document the complete procurement process — from originating request to contract close-out. Process documentation will help TIPS users understand *how the system supports them in doing their job,* rather than simply how they can use certain features within the system.

7.3 Maintaining TIPS Documentation

As TIPS evolves and LANL's procurement business changes, the TIPS team will have to implement a strategy for keeping the documentation current with the software releases and changing business processes. TIPS managers should factor documentation update and roll-out costs into each potential system enhancement (see *Figure 2-2*).

There are several options available to LANL in terms of maintaining TIPS documentation, including:

◆ Maintain documentation manuals (including quick reference guides) and Online Help concurrently

◆ Maintain Online Help exclusively

◆ Maintain documentation manuals exclusively

◆ Maintain a mix of Online Help and documentation manuals (e.g., documentation manuals provide overview instruction, while Online Help provides updated step-by-step instruction).

8   Training Strategy

The primary goal of training is to provide end users with the knowledge and skills necessary to successfully transition to a new working environment based on TIPS. Since TIPS will ultimately integrate multiple disparate subsystems (PD, JIT, DW, etc.), comprehensive training will be required to allow the user to take full advantage of the tools TIPS will provide. The specific structure of TIPS training courses will depend on the level of integration among TIPS subsystems. It may make sense, for example, to structure a course that covers both JIT and Procurement Desktop quick buy functionality for those buyers that concentrate on 'commodity' purchases. The forthcoming TIPS system design, along with user roles, will be a good basis upon which to structure TIPS training courses.

Similar to the TIPS documentation approach, the TIPS training strategy must address the needs of the two major categories of users — *buyers and requesters*. The remainder of this section outlines the assumptions, principals, and techniques that will serve as a guide toward the implementation of Procurement Desktop training as a component of TIPS.

Using the 'Train the Trainer' approach, AMS will transfer the necessary knowledge (e.g., Procurement Desktop functionality and training techniques) to LANL training staff via 'Train the Trainer' courses. These 'Train the Trainer' courses will take place prior to end-user training using the fully integrated and customized version of Procurement Desktop. LANL trainers will then assume responsibility for training the new Procurement Desktop user community at LANL. In addition, AMS training staff will be present during the initial end-user training courses in order to provide any needed support to LANL trainers. As a result of using this approach, LANL training staff will ultimately take ownership of Procurement Desktop training at LANL.

In addition to the 'train the trainer' courses and end user training that will occur just prior to and during production rollout, AMS will train a subset of users on the Procurement Desktop baseline early on in the project. The target audience for the baseline training course should consist of all members of the user group designated to assist in requirements analysis and customization efforts.

8.1 Training Principles

In order to provide a smooth transition to the Procurement Desktop system, trainers will use the following general principles to design, develop, and deliver Procurement Desktop training:

◆ All LANL personnel receive a Procurement Desktop system overview as part of each training course.

◆ Each target audience, such as complex subcontracts buyers, receives training that emphasizes their specific procurement functions, such as *purchase orders* versus *complex contracts*.

◆ Trainers schedule training to coincide as closely as possible to the roll out of Procurement Desktop at each site. This provides users the opportunity for timely, hands-on exposure to the system.

◆ Training courses introduce users to the TIPS/Procurement Desktop documentation and on-line help, enabling them to develop confidence in their ability to locate information as needed.

◆ Given the duration of a training course, the course uses the appropriate mix of lecture, hands-on, and exercise techniques to maximize knowledge and skill retention.

8.2 Training Assumptions

The following assumptions have been made regarding the Procurement Desktop Training Strategy for LANL:

◆ AMS will conduct the 'train the trainer' and 'train the tester' sessions at LANL facilities in Los Alamos, New Mexico.

◆ Course participants have a basic knowledge of the LANL procurement process prior to attending training.

◆ Course participants have a working knowledge of Windows Version 3.1/Windows95 and mouse operation prior to attending training.

◆ Course participants have a working knowledge of all office automation tools integrated within the Procurement Desktop environment (e.g. MS Word, MS Excel) prior to attending training.

◆ LANL will prepare the training environment for scheduled Procurement Desktop training courses.

TIPS/PD Implementation Plan

◆ LANL will provide Procurement Desktop trainers access to the training environment (i.e., training database) *three full days prior to the start of training* to allow sufficient time for training data setup.

◆ LANL and AMS will determine the dates and times for training and LANL will arrange for the appropriate staff to attend each session.

◆ There will be no more than two participants per workstation in training (one-to-one is optimal).

◆ The following LANL staff will attend each training course:

- A LANL Procurement Desktop project-knowledgeable representative to assist in answering LANL-related questions, if necessary;

- If available, a local "superuser" to provide training support.

◆ *Level 1* support staff, also referred to as "superusers," will augment formal training courses by providing informal user assistance, as necessary, outside of training.

◆ Software installation will be completed prior to training.

◆ LANL will be responsible for duplicating all TIPS/Procurement Desktop Manuals and Course-specific Training Materials for training or identifying an alternative means of distribution.

8.3   Training Techniques

Training courses call for a combination of the following teaching methods:

◆ Lectures/Presentations—Lectures and presentations allow the instructor to present general and conceptual information, such as the context in which the Procurement Desktop system will operate, prior to more in-depth instruction. Instructors present their material and support their discussion with transparencies and/or slides. These presentations use a large screen medium to allow all participants to view system operation and follow along, if required. The appropriate User, Technical, and Course documentation will supplement these discussions . Lectures may also include Procurement Desktop overview demonstrations. Since active (rather than passive) learning is a much more effective means of instruction, the use of lectures and presentations is kept to a minimum whenever possible.

◆ Hands-On Instruction—This method of instruction involves hands-on training for each user. The instructor leads the training participants step-by-step, through particular functions of Procurement Desktop module topics. This method of instruction not only allows users to "see" the system function, but also comfortably "guides" them through it. Course materials supplement the hands-on instruction.

◆ Exercises—Participants are required to work through assigned exercises based on classroom instruction. This method draws on what the user has learned via hands-on instruction and course lectures; furthermore, the user is challenged to independently apply the instruction they have received. It may be necessary, due to equipment and/or time constraints, to perform these exercises outside of the instructor-led class.

◆ Training Course Evaluation Form—The course evaluation form is used to monitor training effectiveness throughout the training process. LANL Instructors are encouraged to review these forms and incorporate appropriate changes to enhance their presentations.

8.4   Training Course Structure

TIPS training should reflect user roles

The Procurement Desktop training courses are made up of one or more modules. These modules present groupings of logical training topics that correspond to particular tasks within LANL's procurement process, such as "Solicitation Preparation". The topics follow a logical progression of the tasks associated with a course's target audience. The topics themselves contain the specific activities associated with that procurement task, such as "Identify Type of Solicitation".

In addition to using customized topics, training courses also cover more general topics. Courses begin with an overview-style lecture which typically focuses on the role of Procurement Desktop and of the particular training audience within it as well as a summary of Procurement Desktop capabilities and system architecture. Courses conclude with a brief presentation of the Procurement Desktop support concept and provide time for questions and answers.

Each training course contains a course overview, detailed outlines of the associated modules, and a course agenda. The course overview provides a general course description, including the target audience(s) and course duration. The course agenda provides a brief description, objective, and duration of the course, and is suitable for distribution at the beginning of class. Outlines of course modules contain a description, a list of the topics and activities covered in the module, and a description of the training materials and techniques associated with that module.

8.5　Training Materials

The Procurement Desktop training philosophy involves providing the end user with the knowledge and techniques to be self sufficient in the operation of Procurement Desktop following course instruction. As a result, the primary training materials used to supplement formalized hands-on instruction include the system documentation and Online Help, both of which the user may reference in a production environment. In addition, training specific materials such as diagrams and exercises will be provided to supplement course instruction. With the exception of exercises, these materials will not provide step-by-step instruction. The course instructors and user's manuals will provide other necessary detail.

In order to supplement the 'train the trainer' courses, a Training Preparation Guide will also be provided to assist the LANL trainers in the preparation and execution of Procurement Desktop training courses. The guide will contain information such as:

◆ Planning Checklists—These preparation checklists outline tasks to be performed by the trainer prior to the start of class.

◆ Course Agendas—Sample agendas that list course activities and the associated duration of each.

◆ Trouble Shooting Reference—This reference assists the trainer in trouble-shooting problems/issues that may arise during a course.

◆ Teacher Aides—Teacher aides include items such as course evaluations supplement instruction material.

◆ Data Setup Guide—This guide provides the trainer direction (i.e., 'things to think about') when setting up data for a course. The guide does not include step-by-step instruction for inputting training data.

9   TIPS Project Schedule

The TIPS project schedule specifies task schedules, dependencies, and responsibilities

The TIPS project schedule is a Microsoft Project-based document listing the tasks and associated resources required to implement TIPS at LANL. Currently, the project schedule contains tasks specific to the implementation of Procurement Desktop as the primary component of TIPS. In order to serve as a comprehensive guide for the implementation of TIPS, however, the project schedule should be updated to include all tasks that are integral to the implementation of TIPS (e.g., implementation of other TIPS subsystems—JIT, P-Card, etc.).

The Project Schedule includes:

◆   A planned begin and end date for each task, and the resulting duration;

◆   Responsible party for each task — both parties (AMS and LANL) will be involved in almost all project tasks. The "responsible" party ensures that the task is executed and the appropriate individuals are involved.

The TIPS project schedule contains 5 primary components

The TIPS/PD project schedule is divided into the following major components:

◆   Analyze Purchasing Requirements—This set of tasks is aimed at achieving a common understanding of the LANL procurement process to be supported by TIPS. Moreover, a *TIPS Functional Map* will be developed to assist in identifying process improvements and desired Procurement Desktop enhancements. Procurement Desktop "set-up" activities — consisting of system administration setup and some minor software tailoring, are also initiated during this phase.

◆   Define TIPS/PD System Architecture—This set of tasks establishes the technical infrastructure required to successfully implement Procurement Desktop at LANL. Functional requirements are analyzed to determine the required technical infrastructure.

◆ Implement Procurement Desktop Pilot—This set of tasks builds on the information gathered in the functional analysis and system architecture tasks to implement a Procurement Desktop pilot site at LANL. Enhancements to Procurement Desktop (including interfaces to existing systems) are designed, developed, and tested prior to pilot operations. Training is also conducted for the pilot users in preparation for pilot operations.

◆ Complete Lab-wide Implementation—The set of tasks, performed for lab-wide operations, will largely mirror those performed for the Procurement Desktop pilot. Further enhancements and system integration activities must be designed, developed, and tested prior to lab-wide operations, as well as conducting the necessary user training.

◆ Conduct On-going Project Management Activities—This set of tasks is performed jointly among LANL and AMS project managers to ensure good communication across all project stakeholders (see *Section 2*). In addition, the status of the project is assessed regularly to identify, track, and resolve project-related issues.

Figure 9-1   TIPS Project Schedule

Task No.	Task Name	Responsibl	Start	Finish
1	*Begin TIPS Implementation*		*Thu 10/24/96*	*Thu 10/24/96*
2	**Analyze Purchasing Requirements**		**Thu 10/24/96**	**Fri 10/31/97**
2.1	**Define Standard LANL Procurement Process**		**Thu 10/24/96**	**Fri 1/31/97**
2.1.1	Conduct JADs	AMS/LANL	Tue 11/5/96	Thu 11/21/96
2.1.2	Interview users	AMS	Mon 12/9/96	Fri 1/31/97
2.1.3	Analyze Current Procurement Forms	AMS	Thu 10/24/96	Fri 12/20/96
2.1.4	Identify Interface Requirements	AMS/LANL	Thu 10/24/96	Fri 12/20/96
2.1.5	Identify Data Conversion Requirements	AMS/LANL	Mon 1/6/97	Fri 1/31/97
2.2	Identify, Group and Prioritize PD Enhancements (Functional Map Analysis)	AMS	Thu 12/12/96	Fri 10/31/97
2.3	Define TIPS/PD Reporting Strategy	AMS/LANL	Mon 1/6/97	Fri 3/14/97
2.4	Define PD System Administration Settings	AMS/LANL	Mon 1/6/97	Fri 3/14/97
2.5	**Define PD "Set-up" Options (Software Tailoring)**		**Fri 12/13/96**	**Fri 2/14/97**
2.5.1	Define LANL-specific Printed Forms	AMS	Fri 12/13/96	Fri 1/17/97
2.5.2	Define LANL-specific Document Numbering Schemes	AMS	Fri 12/13/96	Fri 1/17/97
2.5.3	Define LANL-specific Terms & Conditions	AMS	Fri 12/13/96	Fri 1/17/97
2.5.4	Define LANL-specific Archiving Parameters	AMS	Mon 1/6/97	Fri 2/14/97
3	**Define TIPS/PD System Architecture**		**Thu 10/24/96**	**Mon 12/16/96**
3.1	**Establish Baseline Technical Architecture for TIPS/PD at LANL**		**Thu 10/24/96**	**Mon 12/16/96**
3.1.1	Identify Client machine configurations	AMS	Thu 10/24/96	Mon 12/16/96

Task No.	Task Name	Responsibl	Start	Finish	4th Quarter Oct	Nov	Dec	1st Quarter Jan	Feb	Mar	2nd Quarter Apr	May	Jun	3r Jul
3.1.2	Identify Server machine configurations	AMS	Thu 10/24/96	Mon 12/16/96				AMS						
3.1.3	Identify Baseline Network Architecture	AMS	Thu 10/24/96	Mon 12/16/96				AMS						
3.1.4	Identify Common File Access strategy	AMS	Thu 10/24/96	Mon 12/16/96				AMS						
3.1.5	Specify Additional Hardware/Software Procurement Requirements	AMS	Thu 10/24/96	Mon 12/16/96				AMS						
3.2	**Describe Architecture Solutions to High-level Functional Requirements**		**Thu 10/24/96**	**Mon 12/16/96**										
3.2.1	Define Application Architecture for Existing Systems to be Integrated with PD	AMS	Thu 10/24/96	Mon 12/16/96				AMS						
3.2.2	Identify Interface strategy	AMS	Thu 10/24/96	Mon 12/16/96				AMS						
3.2.3	Identify Data Conversion strategy	AMS	Thu 10/24/96	Mon 12/16/96				AMS						
3.2.4	Architect Common Processes (e.g., Backup & Recovery)	AMS	Thu 10/24/96	Mon 12/16/96				AMS						
3.2.5	Estimate Data Volume	AMS	Thu 10/24/96	Mon 12/16/96				AMS						
3.3	Identify Risks, Issues, and Action Items	AMS	Thu 10/24/96	Mon 12/16/96				AMS						
3.4	*Deliver Base TIPS System Architecture Document*	*AMS*	*Mon 12/16/96*	*Mon 12/16/96*			◆ 12/16							
4	**Implement Procurement Desktop Pilot**		**Thu 10/24/96**	**Fri 5/30/97**										
4.1	Define Pilot Objectives	AMS/LANL	Thu 10/24/96	Fri 12/20/96				AMS/LANL						
4.2	Define Pilot Implementation Schedule	AMS	Fri 12/6/96	Fri 1/10/97					AMS					
4.3	Define Implementation Roles and Responsibilities	AMS/LANL	Fri 12/6/96	Fri 1/10/97						AMS/LANL				
4.4	Define Configuration Management Procedures	AMS	Fri 12/6/96	Wed 1/15/97					AMS					
4.5	Configure Development Environment at AMS	AMS	Fri 12/13/96	Wed 1/15/97					AMS					
4.6	Convert PD Backend to DB2 CS 3	AMS	Fri 12/13/96	Wed 1/15/97					AMS					

Task No	Task Name	Responsibi	Start	Finish
4.7	Configure Demo/Lab Environment at LANL	AMS/LANL	Fri 12/13/96	Wed 1/15/97
4.8	Develop Web PR module proof of concept	AMS	Fri 12/6/96	Wed 1/15/97
4.9	**Design PD Enhancements**		**Thu 12/12/96**	**Fri 1/31/97**
4.9.1	Design Web PR module	AMS	Thu 12/12/96	Fri 1/31/97
4.9.2	Design Baseline Modifications	AMS	Thu 12/12/96	Fri 1/31/97
4.9.3	Design Interfaces	AMS	Thu 12/12/96	Fri 1/31/97
4.9.4	Design Data Conversion Processes	AMS	Thu 12/12/96	Fri 1/31/97
4.10	**Develop PD Enhancements**		**Mon 2/3/97**	**Fri 3/14/97**
4.10.1	Develop Web PR module	AMS	Mon 2/3/97	Fri 3/14/97
4.10.2	Develop Baseline Modifications	AMS	Mon 2/3/97	Fri 3/14/97
4.10.3	Develop Interfaces	AMS	Mon 2/3/97	Fri 3/14/97
4.10.4	Develop Conversion Processes	AMS	Mon 2/3/97	Fri 3/14/97
4.10.5	Develop "Set-up" Option-related Modifications	AMS	Mon 2/3/97	Fri 3/14/97
4.10.6	Develop Common Processes (e.g., Backup & Recovery)	AMS	Mon 2/3/97	Fri 3/14/97
4.11	**Test PD Enhancements**		**Mon 3/17/97**	**Tue 4/15/97**
4.11.1	Test Baseline Modifications and Set-up Modifications	AMS	Mon 3/17/97	Tue 4/15/97
4.11.2	Test Web PR module	AMS	Mon 3/17/97	Tue 4/15/97
4.11.3	Test Interfaces	AMS	Mon 3/17/97	Tue 4/15/97
4.11.4	Test Conversion Processes	AMS	Mon 3/17/97	Tue 4/15/97

Gantt chart timeline: 4th Quarter (Oct, Nov, Dec), 1st Quarter (Jan, Feb, Mar), 2nd Quarter (Apr, May, Jun), 3r (Jul)

- 4.7: AMS/LANL
- 4.8: AMS
- 4.9.1: AMS
- 4.9.2: AMS
- 4.9.3: AMS
- 4.9.4: AMS
- 4.10.1: AMS
- 4.10.2: AMS
- 4.10.3: AMS
- 4.10.4: AMS
- 4.10.5: AMS
- 4.10.6: AMS
- 4.11.1: AMS
- 4.11.2: AMS
- 4.11.3: AMS
- 4.11.4: AMS

Task No	Task Name	Responsit	Start	Finish
4.11.5	Test Common Processes	AMS	Mon 3/17/97	Tue 4/15/97
4.12	**Conduct TIPS/PD System Acceptance Test**		**Mon 2/3/97**	**Wed 4/30/97**
4.12.1	Define Testing Strategy Based on TIPS Business Process	AMS/LANL	Mon 2/3/97	Fri 2/28/97
4.12.2	Develop Test Scenarios	AMS/LANL	Mon 3/3/97	Fri 3/28/97
4.12.3	Conduct Integrated Acceptance Test	LANL	Wed 4/16/97	Wed 4/30/97
4.13	Develop TIPS/PD Documentation	AMS/LANL	Mon 2/3/97	Fri 3/28/97
4.14	**Train Pilot Users**		**Mon 2/3/97**	**Fri 5/30/97**
4.14.1	Define Training Strategy	AMS/LANL	Mon 2/3/97	Fri 2/28/97
4.14.2	Conduct TIPS/PD Training	AMS/LANL	Thu 5/1/97	Fri 5/30/97
4.15	**Install Pilot Participants**		**Mon 12/16/96**	**Fri 5/9/97**
4.15.1	Allocate Necessary Computer Resources	LANL	Mon 12/16/96	Wed 4/16/97
4.15.2	Certify System Environment	LANL	Thu 4/17/97	Wed 4/30/97
4.15.3	Install Production Software (on client and database server)	AMS/LANL	Thu 5/1/97	Mon 5/5/97
4.15.4	Execute Required Conversion Routines	AMS/LANL	Tue 5/6/97	Thu 5/8/97
4.15.5	Conduct Installation Test	AMS/LANL	Fri 5/9/97	Fri 5/9/97
4.16	*Begin PD Pilot Operations*		*Mon 5/12/97*	*Mon 5/12/97*
5	**Complete Lab-wide PD Implementation**		**Mon 11/3/97**	**Mon 11/3/97**
5.1	*Begin Lab-wide PD Operations*		*Mon 11/3/97*	*Mon 11/3/97*
6	**Conduct On-going Project Management Activities**		**Thu 10/24/96**	**Thu 1/1/98**

Task No	Task Name	Responsib	Start	Finish	4th Quarter			1st Quarter			2nd Quarter			3r
					Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul
6.1	Conduct Internal Team Meetings	AMS/LANL	Thu 10/24/96	Thu 1/1/98										
6.2	Prepare for Status Meetings and Monitor Project Status	AMS/LANL	Thu 10/24/96	Thu 1/1/98										
6.3	Update Project Sponsors at the Appropriate Intervals	AMS/LANL	Thu 10/24/96	Thu 1/1/98										
6.4	Track and Resolve Outstanding Issues	AMS/LANL	Thu 10/24/96	Thu 1/1/98										
6.5	Perform General Project Administration	AMS/LANL	Thu 10/24/96	Thu 1/1/98										